

In The Drawings

Replacement drawings of Figures 1 to 6 are enclosed herewith in which the superscripts and exponents are now clear. Copies of the previous drawings are enclosed for the Examiner's convenience.

REMARKS:

Corrected Figures 1 to 6 have been filed. While the Examiner's objection relates only to Figures 3 to 5, all Figures have been improved in regard to size and quality of print. No changes have been made to the drawings.

The claims have been carefully reviewed and revised to overcome the points raised by the Examiner under 35 U.S.C. 112 and to make other points more clear.

In particular in relation to the objection a), it has been made clear in the claim that : *"wherein the probes of each pair are electrically separated each from the other,"* so as to make clear that the probes cannot be connected to short out the conductors.

In particular in relation to the objection b), it has been made clear in the claim the step of : *"forcing each probe longitudinally into the material at the respective location so as to penetrate through the surface of the material and to engage into the absorbent material"* so as to make clear that the probes do not penetrate the material by themselves.

In particular in relation to the objection c), it has been made clear in the claim that : *"each probe is a rigid elongate conductive element of a corrosion resistant material,"* so as to make clear that the probes cannot be of a material which corrodes to an extent which cannot work.

In regard to the objection concerning Claims 13 and 22, the arrangement as claimed including the probes through the conductors and the water pervious layer over the conductors is used in practice in many installations and the measurement of the current across the conductors provides valuable information. Therefore speculation by the Examiner as to what might or might not work in practice is not proper. The claimed method steps are clear and no objection concerning clarity has been raised. It respectfully submitted that no objection under 35 U.S.C. 112 is proper.

With regard to the rejection under 35 U.S.C. 103, the Examiner has cited Stewart, Gott and "Contractors Depot Stainless Stapes".

Neither Stewart nor Gott disclose any probes which the Examiner well appreciates. In order to overcome this deficiency, the Examiner cites "Contractors Depot Stainless Stapes" (CDSS). This however merely discloses the existence of staples which are of course well known and Applicant does not in any way deny that such are known.

The Examiner argues that "It would have been obvious ... to have forced the *"probes" (stapes) into the Stewart moisture detection tape for the benefit of securely engaging the tape as well as each of the first and second conductors to the absorbent material*". It is accepted that in some cases staples are used in conjunction with adhesive to hold tapes or similar elements more effectively. However it is submitted that the stapes in this case will be used to engage ONLY the tape and would not be used anywhere near the conductors so as to avoid affecting the operation of the conductors. Thus such a staple if it engages one conductor may also engage the other and thus may cause shorting, which is a concern of the Examiner. Also the conductors of Stewart are carbon fibers embedded in the adhesive layer so that, even if a person accidentally connected a staple across the conductors, there is no suggestion that such a construction would provide the specific step of:

*"as each probe of each pair is forced into the absorbent material, causing the probe of each pair to penetrate a respective one of the first and second conductors of the tape such that each of the conductive probes is electrically connected to the respective one of the first and second conductors by penetrating therethrough"* as set out in Claim 12;

or

*"as the first probe of each pair is forced into the absorbent material, causing*

*the first probe to engage the first conductor of the tape such that the first conductive probe is electrically connected to the first conductor" as set out in Claim 21.*

That is it is submitted that there is no disclosure in the prior art of a probe engaged with the conductor to electrically connect to the conductor. There is no motivation in the prior art to use the staples of CDSS to engage into the conductors and also it is NOT a construction which is a consequence (accidental or otherwise) of combining Stewart and CDSS.

Yet further, the Examiner's own analysis of the matter makes clear that this combination is not obvious. The Examiner in the objection relating to Claim 13 states that the claim is not clear because it is not clear what is being measured. The Examiner states that the ability of the conductors to respond to surface moisture and the existence of the probes is confusing "creating a parallel resistive circuit". Thus it is the Examiner's own position that such a parallel resistive circuit is confusing and contrary to expected operation. Thus it cannot be obvious to do.

It is the analysis of these matters by the Applicant which has lead to the use of a system which uses both probes and exposed conductors which provides useful information to the system contrary to the expectation of the Examiner that the system will not work.

It is submitted that the **Claims 12 and 21** presented herein are in good order for allowance.

Turning now to new Claim 27, this claim has been added and does not include the probes of Claims 12 and 21. However the claim does include the following features:

*"a tape formed by a substrate of dielectric, hydrophobic material, a layer of a mounting adhesive on a bottom surface of the substrate and a first and a second spaced apart, elongate, parallel conductors mounted on a top surface of the substrate and extending therealong;*

*wherein the first and second conductors of the tape are covered along the tape by a protective layer of non-hygroscopic, water pervious, dielectric material secured to the top surface of the substrate and extending over the conductors"*

The first feature makes clear that the conductors are on top of the substrate (on the side opposite the adhesive) and NOT within the substrate or on the underside. And that the substrate is hydrophobic.

The second feature is taken from Claim 13 and provides an additional water pervious layer as defined extending along the tape. That is not a non-permeable material.

In rejecting this claim the Examiner has cited Stewart and states that "Stewart teaches a dielectric non-hydroscopic material (non-permeable insulation 8 Page 3 and Figure 6) secured to the top surface of the substrate and extending over the conductors.

In Stewart in Figures 1, 2 and 3 the conductors are not on top of the tape by are within the body. Stewart refers to the carbon fiber conductors being embedded in permeable adhesive insulation 2 (see page 3, line 4). Thus the fibers are embedded in the insulation not on top and the insulation (substrate) is not hydrophobic. In Figure 6 no clear construction is illustrated. It appears that the fibers are embedded in a layer but this is not clear. The text on page 3 second paragraph refers to permeable insulation 5 and non-permeable insulation (or conventional isolating material) 8. Also the layer 8 in Figure 6 appears to form merely a small piece between the tape and an adjacent element 9. Thus the layer 8 referred to by the Examiner is not permeable and does not extend along the tape.

Gott provides no covering layer at all.

CDSS does not disclose a tape in any way.

Thus there is no prior art or combination of prior art which shows the combination set forth above so that new Claim 27 is not shown in nor obvious from the prior

art cited

It is submitted that the claims presented herein are in good order for allowance.

Respectfully submitted

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